



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,273	09/25/2001	Naoya Hashimoto	Q65705	8063
7590 12/16/2004			EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			ROJAS, BERNARD	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/961,273

Applicant(s)

HASHIMOTO ET AL.

Examiner

Bernard Rojas

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) 2-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8-13 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-6, 8-13 and 15-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Coulombier [US Patent # 6,310,533 B1].

Claim 1, Coulombier discloses an electromagnetic device body [20, figure 2] including a coil formed with a conductor [14] wound around the bobbin [15] and a cover member [insulating tape, not shown, col. 4 lines 10-20] enclosing the coil. A cover [13] molded around the electromagnetic device body with a molding pressure [col. 3 lines 29-35]. The cover member would inherently protect the coil from the molding pressure when the cover is molded around the cover member since it surrounds the coil.

Claim 17, the cover member is cylindrical since it consists of insulative tape wrapped around a cylindrical coil.

Art Unit: 2832

Claim 18, an electromagnetic device body [20, figure 2] including a coil formed with a conductor [14] wound around a bobbin [15] and a cover member [insulating tape, not shown, col. 4 lines 10-20] enclosing the coil; and a cover [13] molded around the electromagnetic device body with a molding pressure [col. 3 lines 29-35]. Wherein the cover member would inherently protect the coil from being directly subjected to molding pressure when the cover is formed by injection molding, by covering said coil since the cover member surrounds the coil.

Claim 19, an electromagnetic device body [20, figure 2] including a coil formed with a conductor [14] wound around a bobbin [15] and a cover member [insulating tape, not shown, col. 4 lines 10-20] enclosing the coil; and a cover [13] molded around the electromagnetic device body with a molding pressure [col. 3 lines 29-35]. Wherein the cover member would inherently have a material strength to protect the coil from being directly subjected to the molding pressure when the cover is molded around the cover member since the cover member surrounds the coil and prevents the cover material from contacting the coil [col. 3 lines 29-35].

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 2832

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulombier [US Patent # 6,310,533 B1] in view of Ghorashi et al. [US Patent #5202187].

Claims 8 and 15, Coulombier discloses the claimed invention with the exception of the thickness of an outer coating of the conductor.

Ghorashi et al. discloses a conductor wire coated with an insulative material. The insulation disclosed is from 1 to 10 mils, at least 4 times larger than the average flash produced on a bobbin as disclosed by applicant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings to provide a robust insulation that is stable to high temperatures and is resistant to water crazing, cracking and loss of coating [col. 1 lines 59-65].

Claims 9-11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulombier [US Patent # 6,310,533 B1].

Art Unit: 2832

Claims 9-11 and 16, Coulombier discloses the claimed invention with the exception of environment in which it is used. It would have been obvious to one having ordinary skill in the art at the time the invention was made to electromagnetic device in various environments, since it was known in the art that an electromagnet of this design is useful in many devices, the specific environment in which the electromagnet is used is a design choice based on the users requirements.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulombier [US Patent # 6,310,533 B1] in view of Trunzo et al. [US Patent 3,676,814].

Claims 12, Coulombier discloses an electromagnetic device with a bobbin [15], a conductor [14] wound around the bobbin.

Coulombier does not disclose that the conductor has an outer coating.

Trunzo et al. teaches a conductor wire coated composed of a welding layer that is made of thermoset epoxy; and an insulative layer that is made of enamel [abs, figure 1]. The insulation disclosed is from 0.001 to 0.005 inches [col. 6 lines 50-60], at least 4 times larger than the average flash produced on a bobbin as disclosed by applicant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings to provide a robust insulation to prevent the coil windings from shorting.

Claim 13, Trunzo et al. teaches a plurality of adjacent conductors, wherein said welding layer bonds said plurality of adjacent conductors to each other [figure 2B].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Br



ELVIN ENAD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER
12/13/04